

FIG. 1

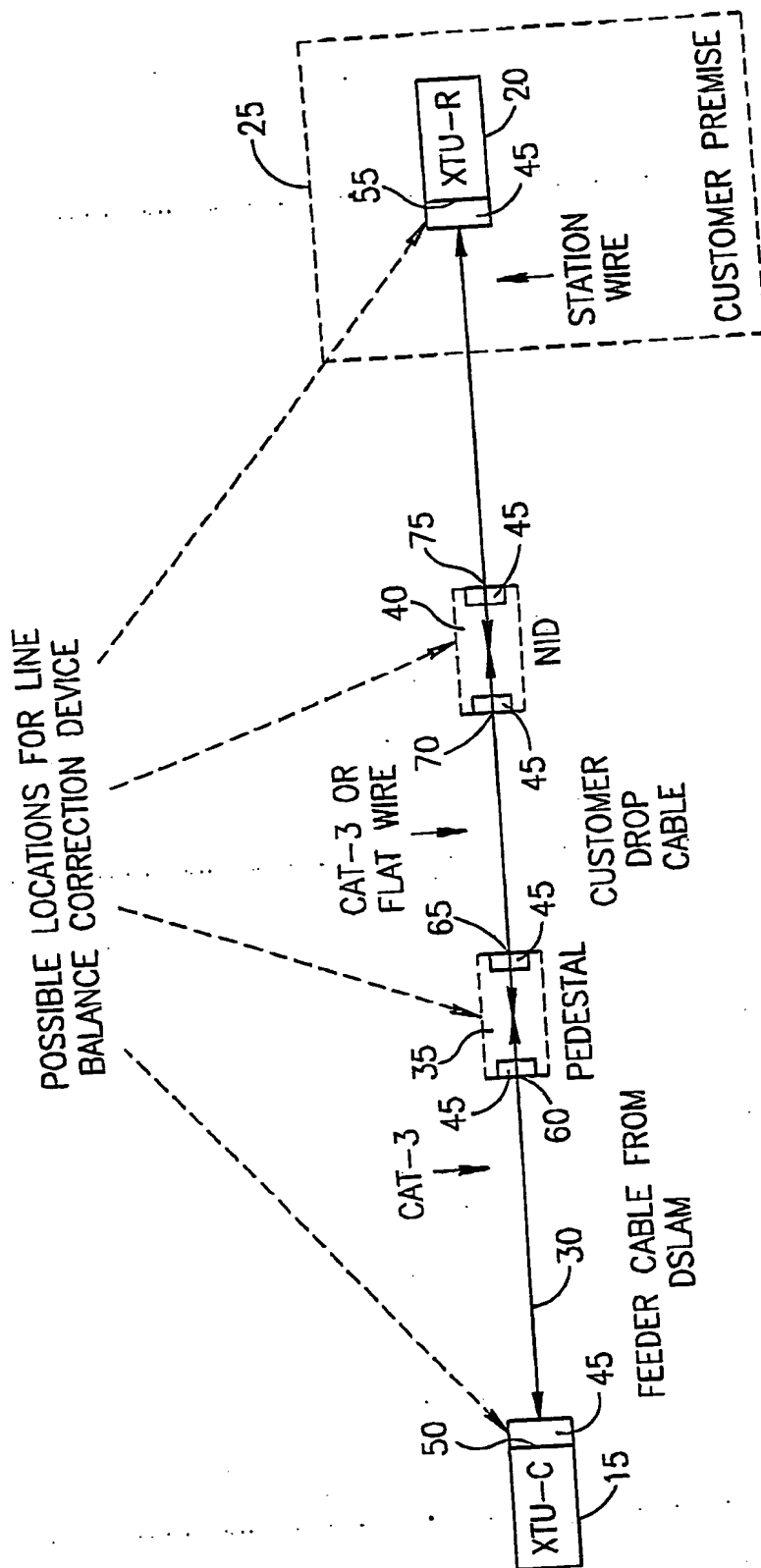


FIG. 1

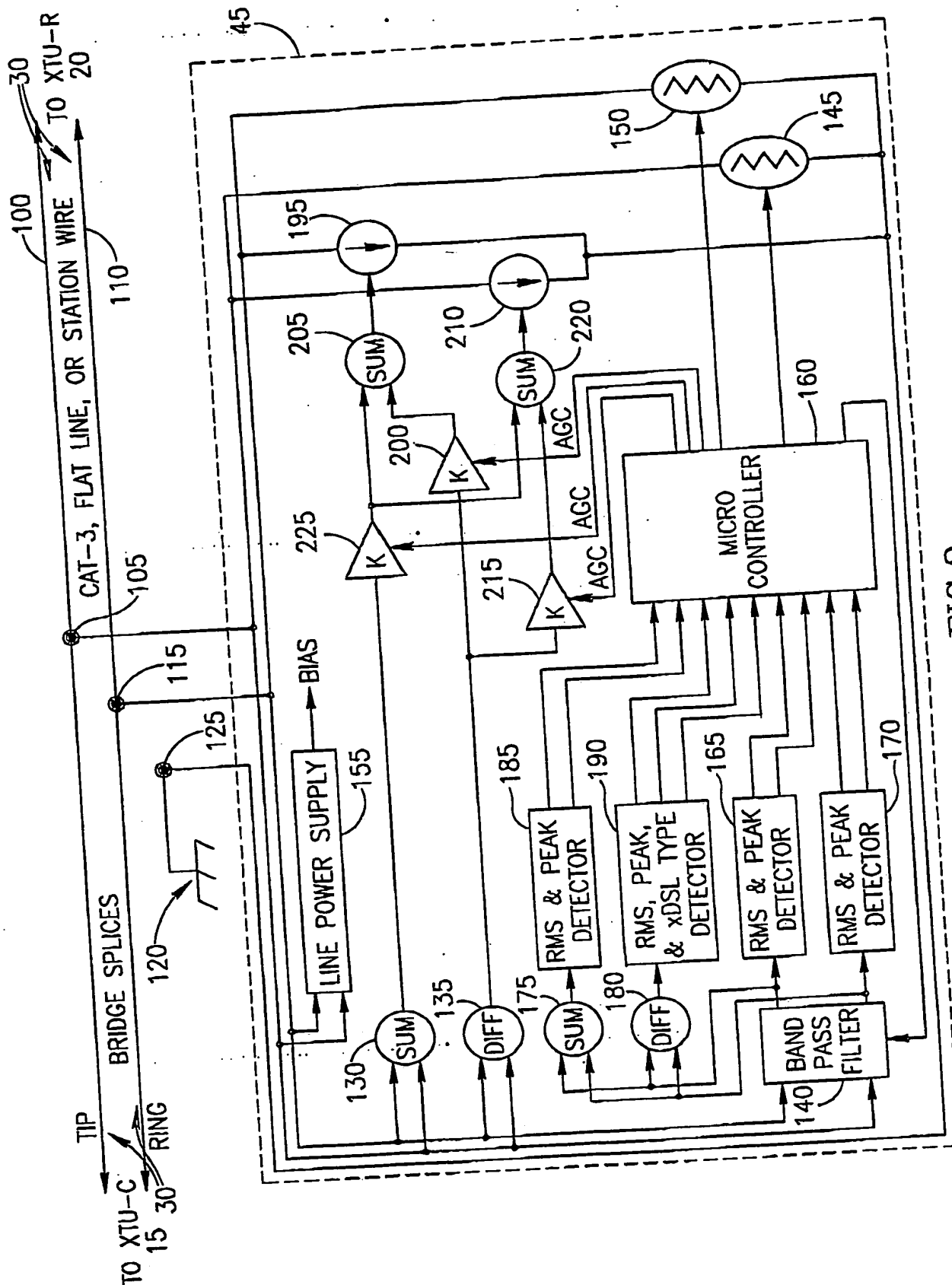


FIG.2

FIG. 3

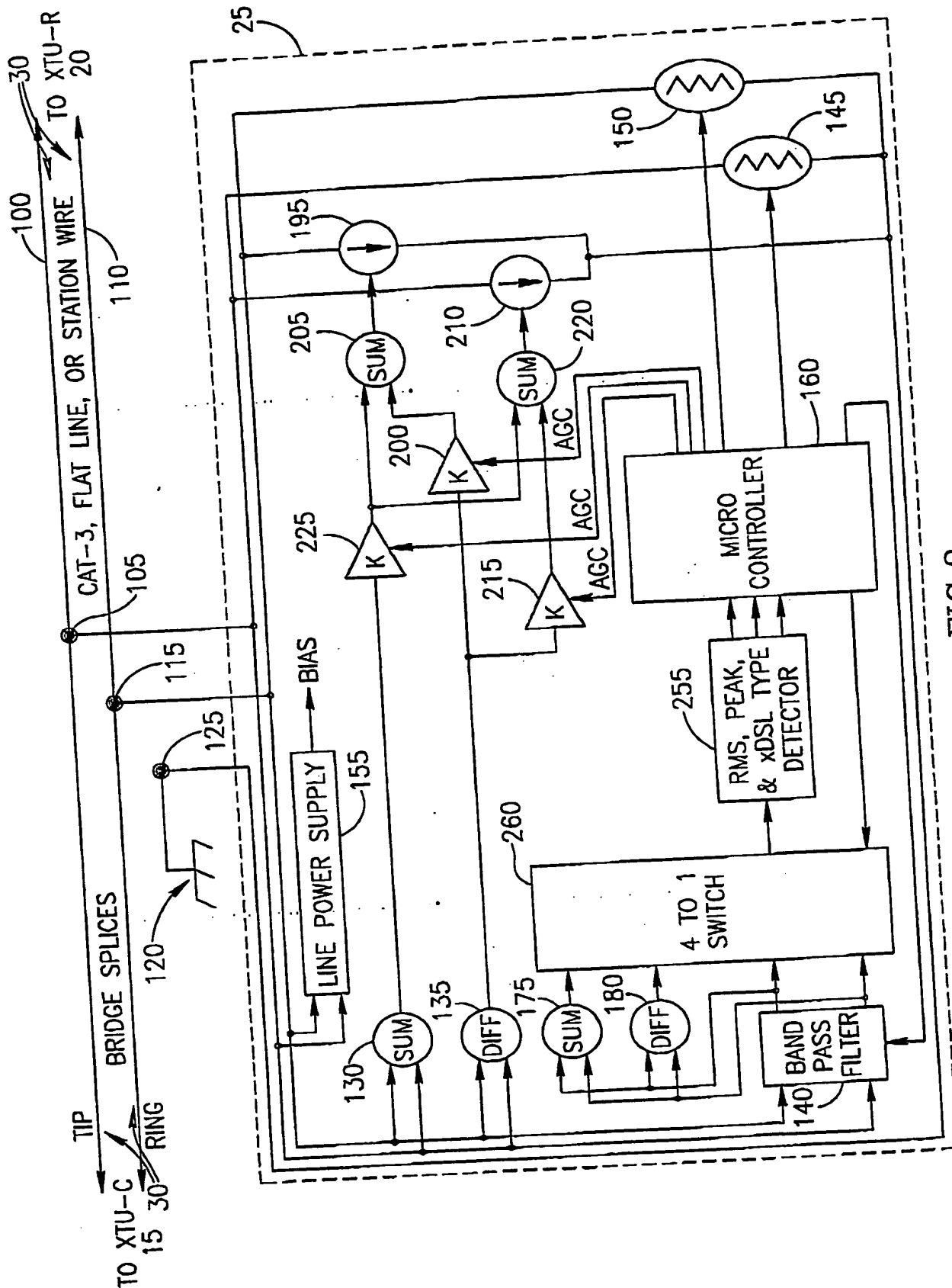


FIG. 3

SENSE RESISTANCE OF EACH WIRE OF A COPPER PAIR  
THAT CARRIES COMMUNICATION SIGNALS

300

INDEPENDENTLY CONTROL THE RESISTANCE OF EACH WIRE  
OF THE COPPER PAIR FOR MATCHING, AT LEAST UP TO  
AN ACCEPTABLE RESISTANCE DIFFERENCE VALUE, RESISTANCE  
OF SIGNALS CARRIED OVER A CORRESPONDING WIRE OF THE  
THE COPPER PAIR TO A LOCAL GROUND

310

FIG.4

COMPUTE AT LEAST ONE OF THE FOLLOWING FOR A COPPER  
PAIR THAT CARRIES COMMUNICATION SIGNALS: COMMON-MODE  
NOISE; AND DIFFERENTIAL SIGNAL IMBALANCE

350

PROVIDE AT LEAST ONE CANCELLATION SIGNAL FOR RESPECTIVELY  
REDUCING AT LEAST ONE OF THE FOLLOWING: THE COMMON-MODE  
NOISE; AND THE DIFFERENTIAL SIGNAL IMBALANCE

360

FIG.5

DETECT AT LEAST ONE OF THE FOLLOWING ON EACH WIRE OF A  
COPPER PAIR THAT CARRIES COMMUNICATION SIGNALS: A RMS  
VOLTAGE; AND A PEAK VOLTAGE

400

EMPLOY AT LEAST ONE OF THE RMS VOLTAGE AND THE PEAK VOLTAGE  
TO COMPUTE AT LEAST ONE OF THE FOLLOWING: A LINE IMBALANCE;  
AND COMMON-MODE NOISE VERSUS DIFFERENTIAL SIGNAL IMBALANCE

410

FIG.6

FIG. 4